

FIG. 1

20

Object Class: Organization  
Attributes: Org. Name=Oracle

98

Object Class= Department  
Attributes: Dept. Name=Administration  
State= CA

97

Object Class= Person  
Attributes: Last Name= Founder  
First Name= Larry  
Tel. No.=555-4444  
State=CA

103

99

Object Class= Department  
Attributes: Dept. Name=Sales  
State= NY

Object Class= Department  
Attributes: Dept. Name=R & D  
State= CA

Object Class= Person  
Attributes: Last Name= Jones  
First Name= Joe  
Tel. No.=555-3333  
Manager=Jim Smith  
State=CA

102

Object Class= Person  
Attributes: Last Name= Doe  
First Name= John  
Tel. No.=555-1111  
Manager=Larry Founder  
State=CA

100

Object Class= Person  
Attributes: Last Name= Smith  
First Name= Jim  
Tel. No.=555-2222  
Manager=John Doe  
State=NY

101

Fig. 1

**Organization Class Table**

Entry No.	Org. Name
96	Oracle



Fig. 2A

**Department Class Table**

Entry No.	Org. Name	State
97	Administrative	CA
98	Sales	NY
99	R & D	CA



Fig. 2B

**Person Class Table**

Entry No.	Last Name	First Name	Tel. No.	State	Manager
100	Doe	John	555-1111	CA	Larry Founder
101	Smith	Jim	555-2222	NY	John Doe
102	Jones	Joe	555-3333	CA	Jim Smith
103	Founder	Larry	555-4444	CA	

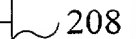


Fig. 2C

**Revised Person Class Table**

Entry No.	Last Name	First Name	Tel. No.	Manager	State	Email Address
100	Doe	John	555-1111	Larry Founder	CA	jdoe
101	Smith	Jim	555-2222	John Doe	NY	
102	Jones	Joe	555-3333	Jim Smith	CA	
103	Founder	Larry	555-4444		CA	



Fig. 3

**Attribute Store Table**

EID	AttrName	AttrVal	AttrKind
96	Org. Name	Oracle	User
97	Dept. Name	Administration	User
97	State	CA	User
98	Dept. Name	Sales	User
98	State	NY	User
99	Dept. Name	R & D	User
99	State	CA	User
100	First name	John	User
100	Last name	Doe	User
100	Tel. No.	555-1111	User
100	Manager	Larry Founder	User
100	State	CA	User
101	First name	Jim	User
101	Last name	Smith	User
101	Tel. No.	555-2222	User
101	Manager	John Doe	User
101	State	NY	User
102	First name	Joe	User
102	Last name	Jones	User
102	Tel. No.	555-3333	User
102	Manager	Jim Smith	User
102	State	CA	User
103	First name	Larry	User
103	Last name	Founder	User
103	Tel. No.	555-4444	User
103	State	CA	User
100	Modification Timestamp	01/01/97	Operational
101	Modification Timestamp	07/01/97	Operational
102	Modification Timestamp	07/30/98	Operational
103	Modification Timestamp	01/01/98	Operational

400

**Fig. 4**

Fig. 5

	EID	AttrName	AttrVal	AttrKind
	.	.	.	.
416	100	First name	John	User
418	100	Last name	Doe	User
420	100	Tel. No.	555-1111	User
422	100	Manager	Larry Founder	User
423	100	State	CA	User
446	100	Modification Timestamp	01/01/97	Operational
502	2	Attribute_Type	Name="First Name" Parameter=name syntax; only one first name;	User
504	2	Attribute_Type	Name="Last Name" Parameter=name syntax; only one first name;	User
506	2	Attribute_Type	Name="Tel. No." Parameter=telephone number syntax; can have up to two.	User
508	2	Attribute_Type	Name="Manager" Parameter=name syntax with first and last name; can have multiple managers.	User
509	2	Attribute_Type	Name="State" Parameter=State syntax; only one state	User
510	2	Attribute_Type	Name="Modification Timestamp" Parameter=date syntax; only one modification timestamp.	User
512	2	Object classes	Name="Person"; Mandatory Attr= "First Name", "Last Name", "Modification Timestamp"; Optional Attr= "Tel.No.", "Manager", "State"	User
514	100	Object class	Person	User
	.	.	.	.

**Last Name Catalog Table**

EID	AttrValue
100	Doe
103	Founder
102	Jones
101	Smith

**Fig. 6A**

**First Name Catalog Table**

EID	AttrValue
101	Jim
100	Joe
102	John
103	Larry

**Fig. 6B**

**Telephone Number Catalog Table**

EID	AttrValue
100	5551111
101	5552222
102	5553333
103	5554444

**Fig. 6C**

**Manager Catalog Table**

EID	AttrValue
102	joe jones
101	john doe
100	larry founder

**Fig. 6D**

**State Catalog Table**

EID	AttrValue
97	CA
98	NY
99	CA
100	CA
101	NY
102	CA
103	CA

**Fig. 6E**

**Distinguished Name Table**

EID	RDN	ParentDN
96	Oracle	
97	Administration	Oracle
98	Sales	Oracle
99	R&D	Oracle
100	John Doe	Oracle.R&D
101	Jim Smith	Oracle.R&D
102	John Jones	Oracle.Sales
103	Larry Founder	Oracle.Administrative

**Fig. 7**

700





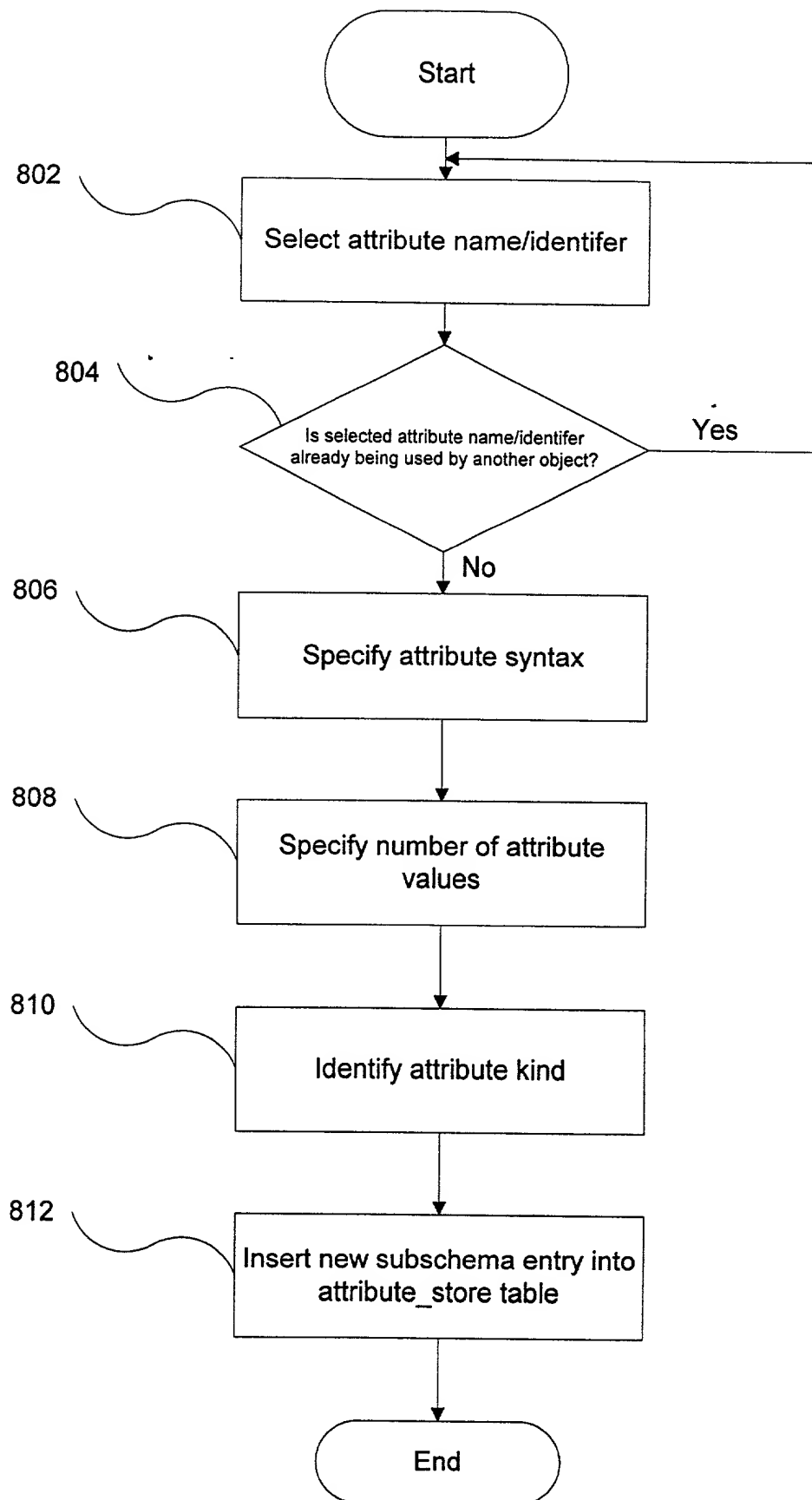
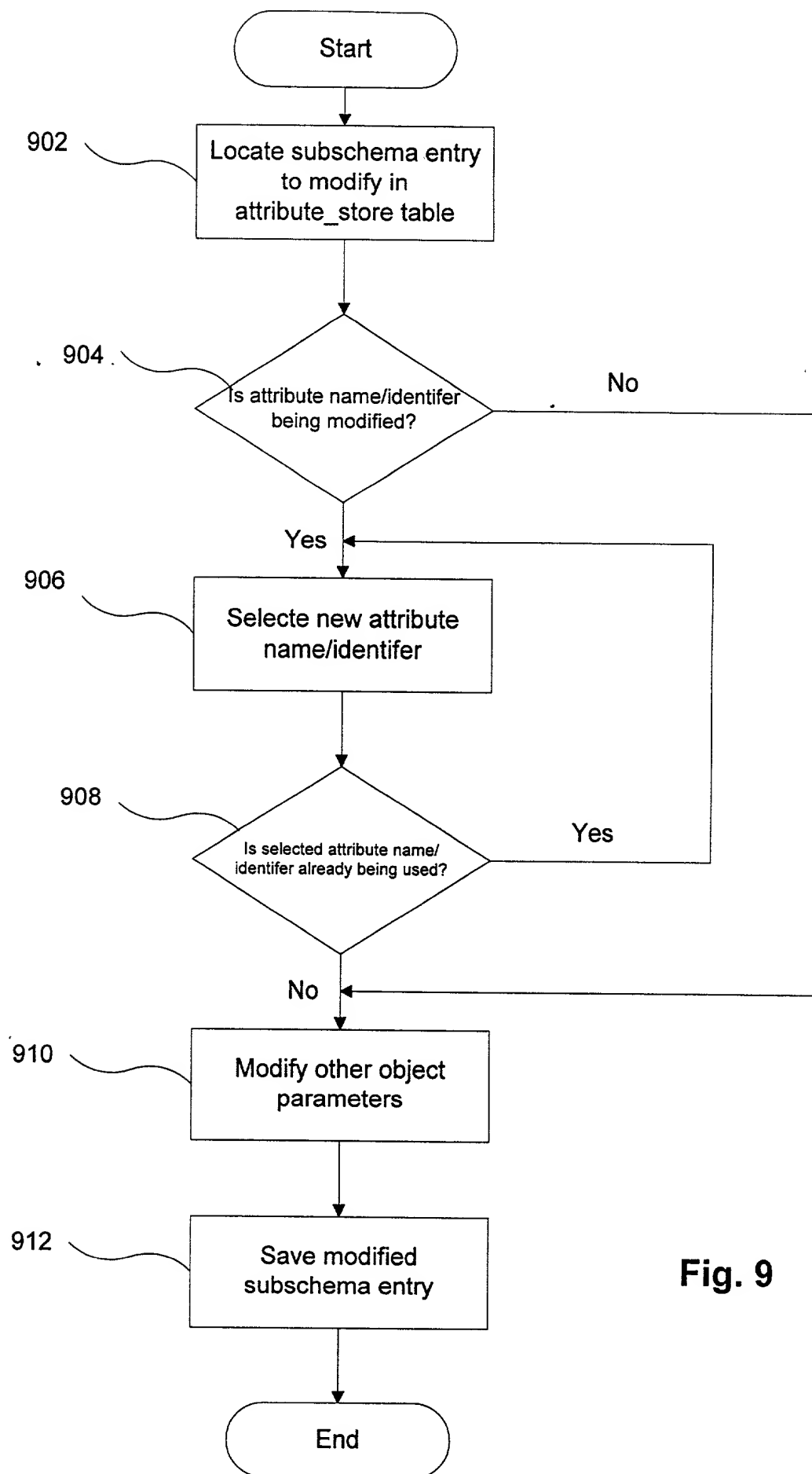
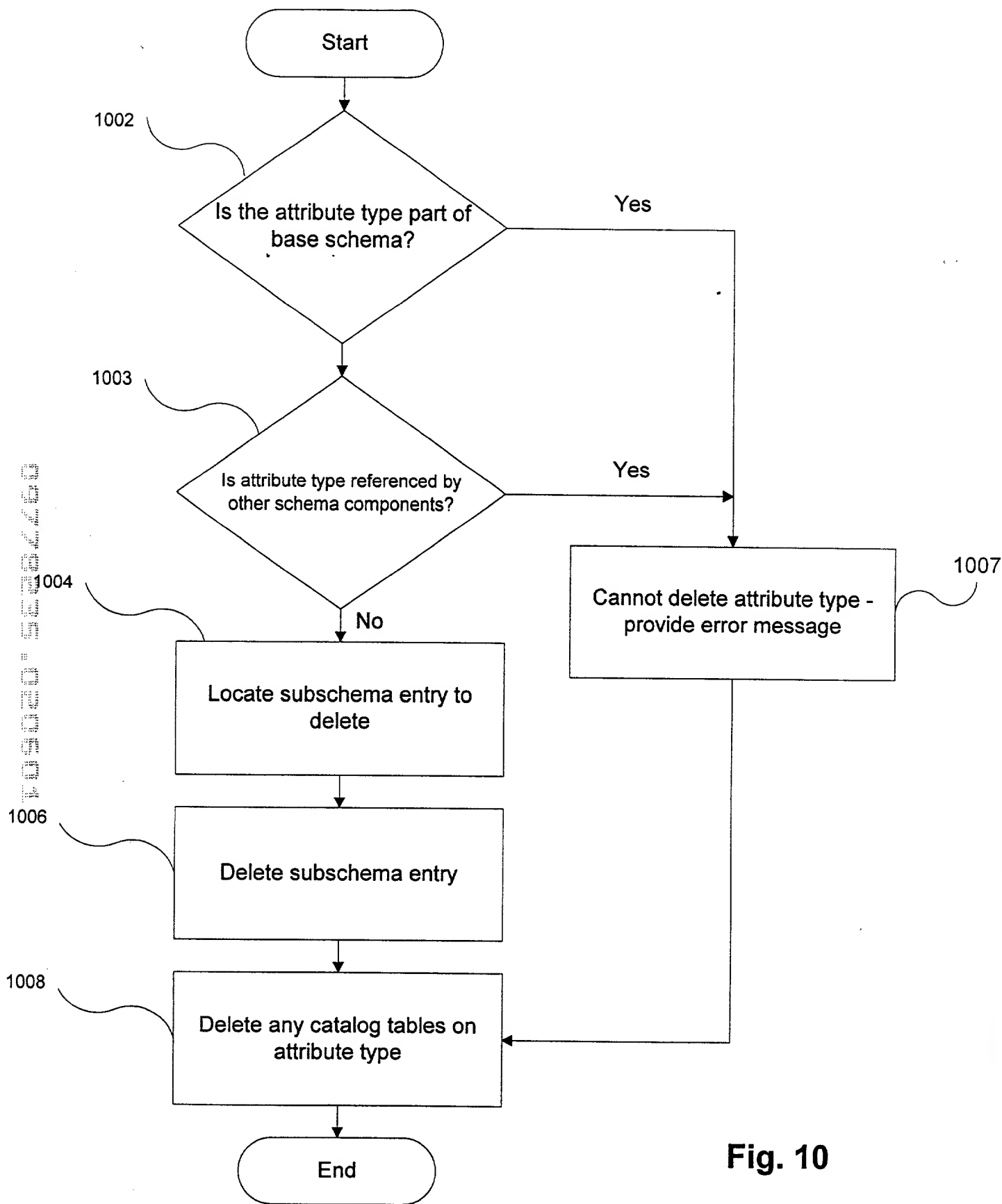


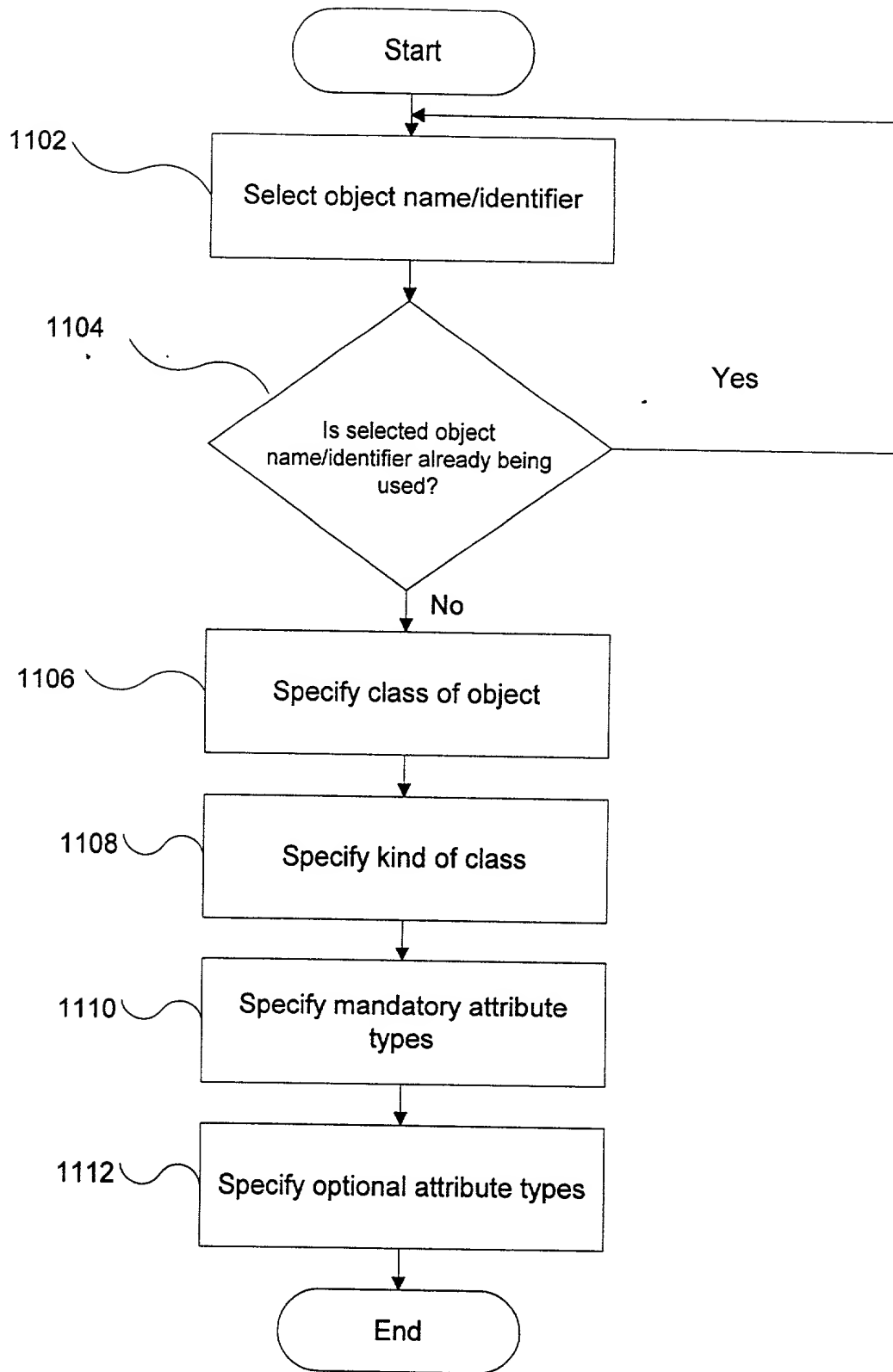
Fig. 8

1 2

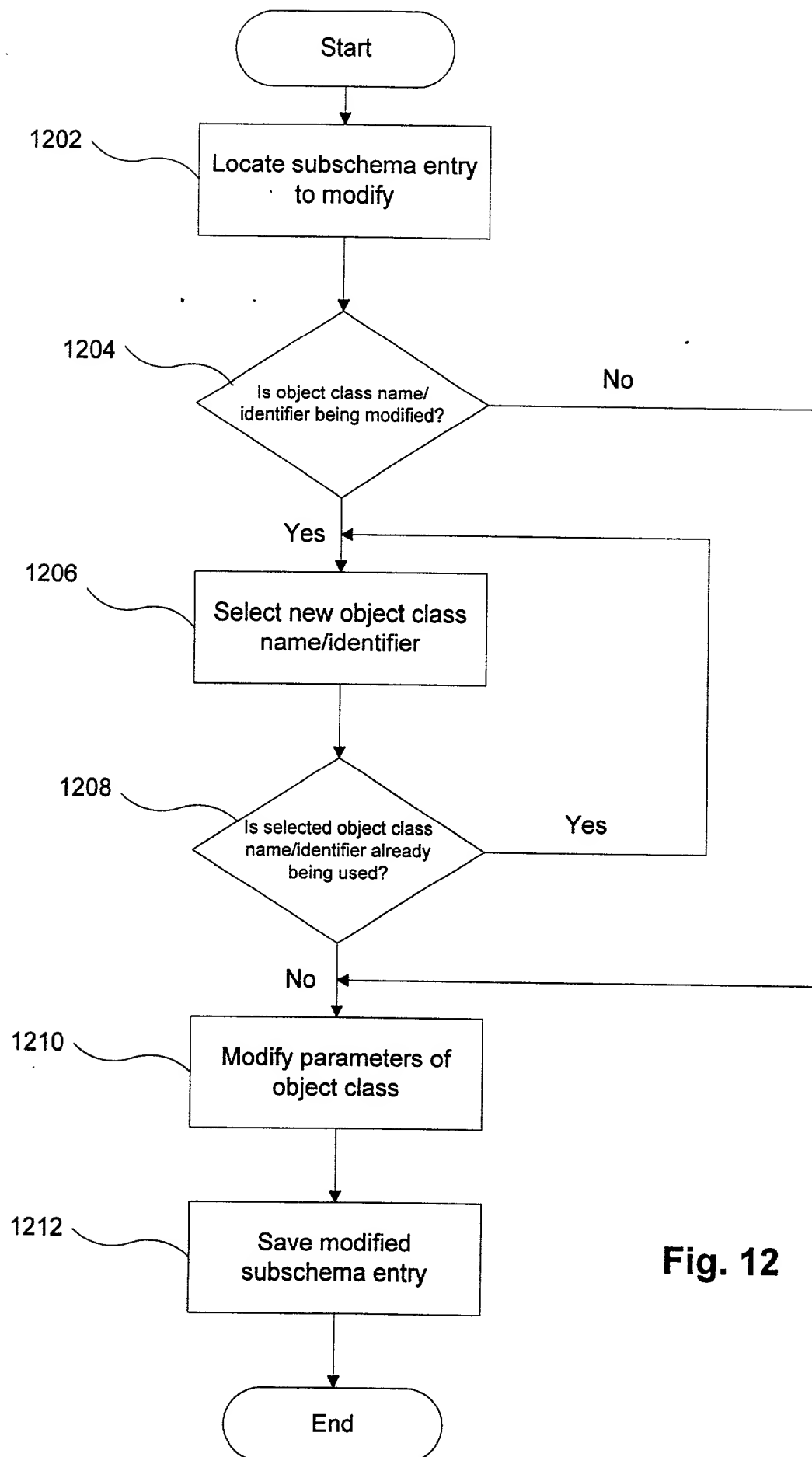




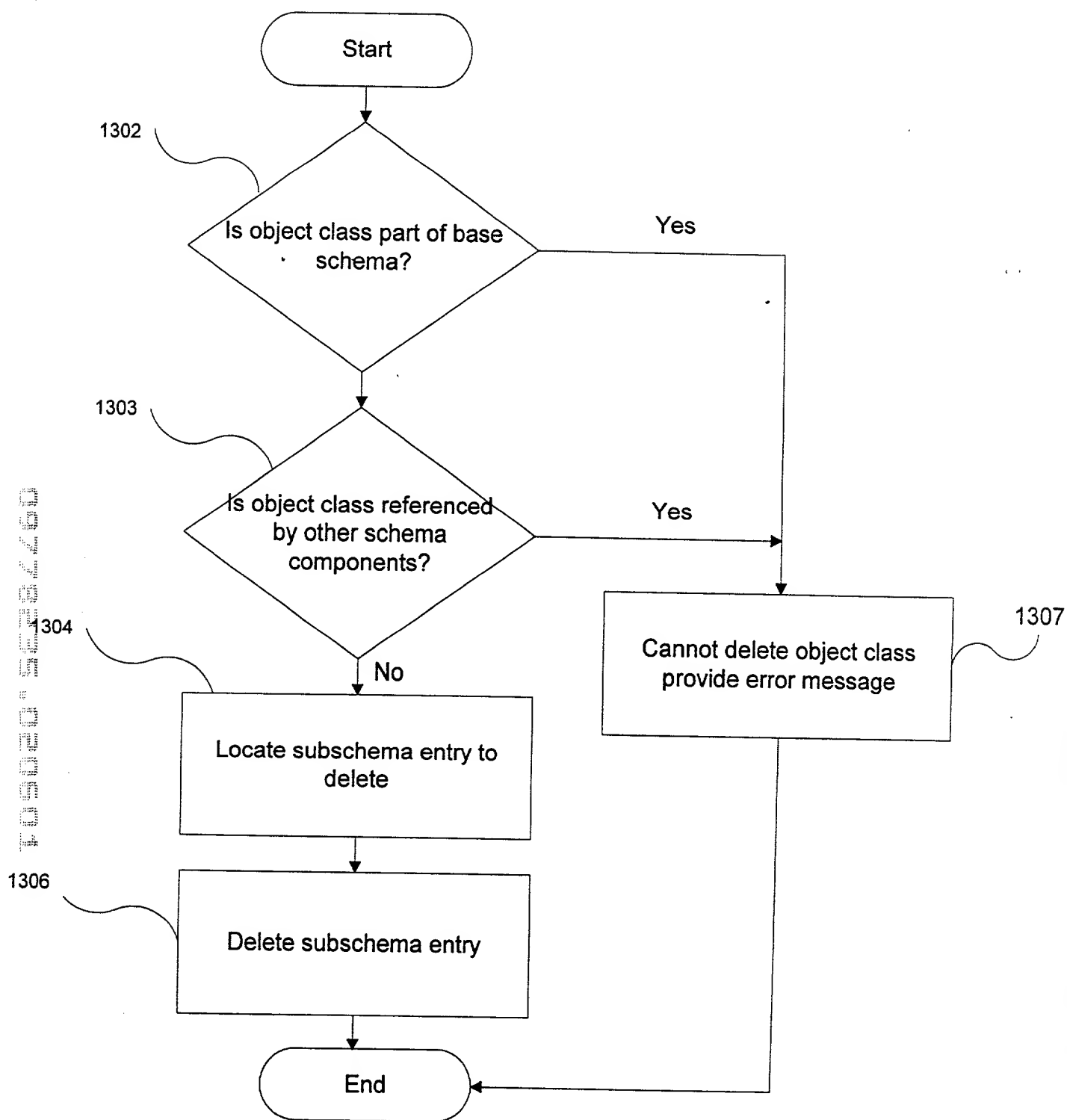
**Fig. 10**



**Fig. 11**



**Fig. 12**



**Fig. 13**

Fig. 14

